

**Commonwealth of Kentucky**  
**Division for Air Quality**  
**DRAFT PERMIT STATEMENT OF BASIS**

DRAFT TITLE V PERMIT NO. V-03-031 R1

GALLATIN STEEL CO.

GHENT, KY

AUGUST 31, 2004

ANDREA RIEGLER, REVIEWER

AI/AFS#: 1449/021-077-00018

ACTION/LOG#: APE200401/56611

**BACKGROUND:**

On October 29, 2003, the Division issued a Title V/PSD permit for the steel mini-mill owned and operated by Gallatin Steel Company in Ghent, Kentucky. In that permit, Gallatin was required to perform testing to demonstrate compliance with Melt Shop emission limitations. Compliance was to be demonstrated by measuring emissions from Melt Shop doors and monovents for two, four-day periods – one each during cold and warm weather. Gallatin Steel completed cold and warm weather testing in March and July 2004 respectively. Based on their analysis of the cold weather testing and on the assumption that warm weather testing would be equally favorable, Gallatin submitted an application to revise their current Melt Shop operating conditions on June 17, 2004.

During this same period, Gallatin also undertook the completion two other projects unrelated to the compliance test. On March 25, 2004, Gallatin Steel submitted an application on behalf of Kimmel's Coal and Packaging requesting authority to construct a new rotary coal dryer. On June 15, 2004, the Division approved this construction and found the permit changes required constituted a minor revision. Also, previous to the issuance of permit # V-03-031 Gallatin Steel had entered into an agreed order with the Division requiring installation of a new and improved lime handling system. On July 1, 2004, the Division received an application including the final design specifications for the new system.

Lastly, to resolve minor issues raised in Gallatin Steel vs. EPPC, File No. DAQ-26488-037, several administrative permit changes including fixing typographical errors, clarifying operating limit language, clarifying monitoring requirement language and changing language in the appendices to more accurately reflect the reality of the compliance testing described above have been made.

Because the requested changes do not authorize a change in any emission standard, the CAM requirements will remain the same.

**CREDIBLE EVIDENCE:**

The permit described in this document contains provisions that require specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.

## **DESCRIPTION OF CHANGES TO SECTION B:**

### **0E1/0E2 – Existing Melt Shop**

(pages 5-17 of 66)

1. The operating limitations previously listed 1.a. were moved to **SECTION H** and listed as Alternate Operating Scenario #1 (see description of this change below).
2. Gallatin Steel expressed concern with the language in operating limitation 1.j. The applicable regulation for this limitation is 401 KAR 63:010. The Division reviewed the language and decided that the previous language could be improved.
3. Because of excessive vehicle traffic, Gallatin suggested that door M26 should be eliminated from operating limitation 1.k. As part of continuing discussion and refinement of compliance testing protocols and work practices, the Division agreed to this change provided that M26 would be included in the warm weather compliance testing on doors and monovents that was performed in July 2004.
4. In response to recent actions during a joint EPA/Division inspection, the Division has added language under 1.m. requiring all slag produced in Gallatin's Melt Shop to be stored in and transported to the slag processing facility in slag pots.
5. Gallatin Steel has expressed confusion over the Division's interpretation of the alternative opacity monitoring requirements described in 40 CFR Part 60 Subpart AAa. The Division agreed that the permit language describing these alternatives was confusing and as such has made several changes in this revision. The first change is the addition of operating limitation 1.n. describing standards and specifications for equipment that may be installed if Gallatin chooses the alternate monitoring plan.
6. In keeping with the monitoring issues described above, emission limitation 2.a. Compliance Demonstrations i. and ii. were changed to reflect changes in **4. Specific Monitoring Requirements**:
7. To alleviate confusion, the Division separated opacity monitoring requirements for the Melt Shop baghouse and openings under **4. Specific Monitoring Requirements**. According to 40 CFR Part 60 Subpart AAa, alternative requirements are given only for monitoring opacity from Melt Shop openings. For baghouses, the source must perform Method 9 readings. Monitoring requirement 4.b. was changed to describe monitoring for only baghouse opacity.
8. Monitoring requirement 4.c. was added and describes the requirements for monitoring Melt Shop openings with Method 9 readings.
9. Monitoring requirement 4.d. was added and describes the requirements for monitoring Melt Shop openings under the alternative listed in 40 CFR Part 60 Subpart AAa.
10. Record keeping requirement 5.c. changed to reflect the changes made to **4. Specific Monitoring Requirements**.

### **OS1/OS2, OB1/OB2 – Miscellaneous Dust**

(pages 37-41 of 66)

1. This point includes the new Lime Handling System required by agreed order; the Division has reviewed and approved Gallatin's proposed design. The description of the point was changed to reflect the addition of the new Lime Handling System and control equipment.
2. The Lime Handling System constitutes a new construction. Testing requirement 3.c. was

added to reflect standard conditions and requirements for new construction.

3. Control equipment condition 7.i. was changed to reflect specifications of the new Lime Handling System.

### **ORC – Recycling & Coal Drying**

(pages 42-45 of 66)

1. This point includes the new equipment installed by Kimmel's Coal and Packaging. The Division reviewed and agrees with calculations submitted by the source showing the maximum potential increase of particulate emissions is < 5 tons/year after control. On July 1, 2004, the Division sent a letter to the source indicating that the construction would be processed as a minor permit revision.
2. The description of the point was changed to reflect the addition of a new rotary dryer, conveying system with a screw auger, wet feed bins and baghouse. The heated dewatering auger was removed.
3. A new applicable regulation, 40 CFR Part 60, Subpart Y, was added.
4. Operating limitations 1.a.-1.d. were changed to reflect the new maximum operating rate.
5. Operating limitation 1.e. was added for the new rotary dryer.
6. Emission limitations for opacity and particulates outlined in 40 CFR Part 60, Subpart Y were added to 2.a. and 2.b.
7. The Rotary Dryer constitutes a new construction. Testing requirements were added to reflect standard conditions and requirements for new construction.
8. New monitoring conditions were added to 4.a. to reflect the requirements of 40 CFR Part 60, Subpart Y.
9. New recordkeeping conditions were added to 4.a. to reflect the requirements of 40 CFR Part 60, Subpart Y.

### **DESCRIPTION OF CHANGES TO SECTION G:**

(pages 54-60 of 66)

Provisions for construction, start-up and initial compliance were added for the new Lime Handling System and Rotary Coal Dryer.

### **DESCRIPTION OF CHANGES TO SECTION H:**

(pages 61-62 of 66)

Three alternate operating scenarios were added to the permit.

1. Alternate Operating Scenario #1 outlines the current conditions under which Gallatin is operating. These are the same conditions that were formerly listed in SECTION B for emission point OE1/OE2 – Existing Melt Shop under 1.a. (see DESCRIPTION OF CHANGES TO SECTION B above). In addition, condition 1.c. was added to indicate that Gallatin currently has authorization to operate under this scenario.
2. Alternate Operating Scenario #2 outlines the operating conditions outlined in Gallatin's June

17, 2004 application. Gallatin's current operating conditions limit steel production to 200 tons/hour averaged over 24 hours. This limitation often requires Gallatin to shut down production once per shift to avoid going over this limit. In their application, Gallatin requested a change in averaging time from 24 to 168 hours.

The Division has reviewed Gallatin's request and has determined that approval for this change is predicated on results from the cool and warm weather testing of Melt Shop door and monovent emissions. At this time, Gallatin has completed the warm weather testing and is within the permitted timeframe for submitting the results. Based on cool weather testing data and observations of warm weather testing, the Division believes Gallatin will be able to demonstrate compliance with all applicable regulations under this operating scenario.

Operation under this scenario, however, is not automatic with issuance of this permit. Warm weather testing data has not been submitted or reviewed. Should the review of testing data demonstrate compliance with all applicable regulations, the Division will authorize Gallatin to operate under this scenario in writing.

If for any unforeseen reason Gallatin is unable to maintain compliance under this scenario, provisions have been added requiring Gallatin to downgrade to Alternate Operating Scenario #1 until such a time that compliance can be demonstrated. In addition, if Gallatin cannot demonstrate compliance within six months, the authority to operate under this scenario will be revoked and Gallatin must seek re-authorization.

3. In on-going communications with the source and after reviewing the cool weather testing data, the Division believes Gallatin may be able to demonstrate compliance with all applicable regulations under a third alternate operating scenario where the hourly steel production rate averaged over 168 hours is increased. Alternate Operating Scenario #3 describes the conditions under which Gallatin may, at some future date providing they can demonstrate compliance with all application regulations, operate at an average steel production rate between 200 and 300 tons/hour.

Like Alternate Operating Scenario #2, operation under this scenario, is not automatic with issuance of this permit. Rather, Gallatin must submit to the Division a specific increased production rate and demonstrate compliance with all applicable regulations under that rate. A provision was also added requiring Gallatin to seek approval for increase in production rate after initial authorization to operate under this scenario.

Again, as for Alternate Operating Scenario #2, if for any unforeseen reason Gallatin is unable to maintain compliance under this scenario, provisions have been added requiring Gallatin to downgrade to Alternate Operating Scenario #1 or #2 (to be determined by the Division) until such a time that compliance can be demonstrated. In addition, if Gallatin cannot demonstrate compliance within six months, the authority to operate under this scenario will be revoked and Gallatin must seek re-authorization.

**DESCRIPTION OF CHANGES TO SECTION I:**  
(page 63 of 66)

Gallatin has long been concerned with the language in SECTION I under condition 1. and

has requested that it be changed. After a review of the consent decree and the language of this condition, the Division agrees with some of Gallatin's concerns. The condition has been changed to more accurately reflect the language of the referenced consent decree.

**DESCRIPTION OF CHANGES TO APPENDIX I:**  
(pages 64-65 of 66)

1. The conditions under 2.b. and 2.c. were simplified from counting days to a range of acceptable dates for testing.
2. The conditions under 4.a. were changed to specifically identify the approved protocol for testing the monovents. Conditions 4.b. and 4.c. were added to reflect conditions that were agreed upon after cold weather testing.
3. The conditions under 5.a. were changed to reflect the addition of door M26 and to specifically identify the approved protocols for testing the doors. Conditions 5.c. and 5.d. were added to reflect conditions that were agreed upon after cold weather testing.
4. Under condition 7. the Division agreed, upon Gallatin's request, to remove language concerning issuance of an NOV. This language is not required; the Division does not require special authority through this permit to issue an NOV if a source is not in compliance.

**Commonwealth of Kentucky**  
**Division for Air Quality**  
**PROPOSED PERMIT STATEMENT OF BASIS**

PROPOSED TITLE V PERMIT NO. V-03-031R1

GALLATIN STEEL CO.

GHENT, KY

AUGUST XX, 2004

ANDREA RIEGLER, REVIEWER

AI/AFS#: 1449/021-077-00018

ACTION/LOG#: APE200401/56611

**CURRENT STATUS:**

On [August 13, 2003](#), the Division issued a preliminary determination on the Title V permit for [XYZ Company, LLC in Loserville, Kentucky](#). This permit was made available for public review and comment. The public comment period for this action ended on [September 15, 2003](#) and [included a public hearing](#). The Division's response to all comments received is attached in a separate document. Significant changes to the permit are described below

In conclusion, a thorough analysis has been made of all relevant information available that pertains to this source. The Division has concluded that compliance with the terms of the permit will ensure compliance with all air quality requirements. Therefore, it is the Division's determination that a proposed Title V permit should be issued as conditioned. The U.S. EPA has 45 days from the date of this issuance to submit comments. If no comments are received during this period, the Division considers the permit final as conditioned. With this issuance, all open permit applications have now been addressed. Any modifications must be submitted in their entirety to be considered for review.

**CREDIBLE EVIDENCE:**

The permit described in this document contains provisions that require specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.

**SIGNIFICANT CHANGES TO INDIVIDUAL UNIT, OPERATION OR ACTIVITY EMISSION AND OPERATING CAPS:**

For each emissions point, list:

1. Source emission point ID number, EIS ID number and title
2. Applicable regulations
3. Regulations that might appear to be applicable but that are not
4. Any specific operating or emissions limitations
5. Any specific monitoring requirements

**SIGNIFICANT CHANGES TO PLANT-WIDE EMISSION AND OPERATING CAPS:**

For the entire facility, list:

1. Plant-wide applicable regulations
2. Regulations that might appear to be applicable to the whole facility but that are not
3. Any specific plant-wide operating or emissions limitations
4. Any specific plant-wide monitoring requirements

**DETAILED UNIT DESCRIPTIONS AND BASIS FOR SIGNIFICANT CHANGES TO DRAFT PERMIT:**

For each emissions point, list the following information and discuss the reasoning behind each determination:

1. Emission point number, title and general description
2. Types of control devices and their capture and control efficiencies
3. Emission factors their source (AP-42, stack test, material balance, consultant, etc.)
4. Applicable regulations
5. Regulations that might appear to be applicable but that are not
6. Any specific operating or emissions limitations
7. Any specific monitoring requirements

**Commonwealth of Kentucky**  
**Division for Air Quality**  
**FINAL PERMIT STATEMENT OF BASIS**

FINAL TITLE V PERMIT NO. V-03-031R1

GALLATIN STEEL CO.

GHENT, KY

AUGUST XX, 2004

ANDREA RIEGLER, REVIEWER

AI/AFS#: 1449/021-077-00018

ACTION/LOG#: APE200401/56611

**CURRENT STATUS:**

The proposed Title V permit for [XYZ Company](#) was issued on [July 7, 2004](#). The U.S. EPA had 45 days from the date of the issuance to submit comments. The Division's response to all comments received is attached in a separate document. Significant changes to the permit are described below

In conclusion, a thorough analysis has been made of all relevant information available that pertains to this source. The Division has concluded that compliance with the terms of the permit will ensure compliance with all air quality requirements. Therefore, it is the Division's final determination that a final Title V permit should be issued as conditioned. With this issuance, all open permit applications have now been addressed. Any modifications must be submitted in their entirety to be considered for review.

**CREDIBLE EVIDENCE:**

The permit described in this document contains provisions that require specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.

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**SIGNIFICANT CHANGES TO PLANT-WIDE EMISSION AND OPERATING CAPS:**

For the entire facility, list:

1. Plant-wide applicable regulations
2. Regulations that might appear to be applicable to the whole facility but that are not



3. Any specific plant-wide operating or emissions limitations
4. Any specific plant-wide monitoring requirements

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